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## Perception of Location Factors by Entrepreneurs and Representatives of Business Environment Institutions

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**Abstract:**

**Purpose:** The principal objective of this study is to determine the hierarchy of importance of the location factors as seen by entrepreneurs and representatives of different institutions in the business environment.

**Design/Methodology/Approach:** Primary data collected through questionnaires designed specifically for this study served as the basis for analyses. The questionnaires were addressed to representatives of various business environment institutions (BEI) and entrepreneurs. For each of the location factors, an analysis was made whether its perception by entrepreneurs was statistically different from the one provided by the BEI representatives. The significance of a difference was tested with the non-parametric Mann-Whitney test.

**Findings:** The research results indicated that the most important location factor according to entrepreneurs was the total costs of conducting business activities, whereas the BEI representatives pointed to the information and telecommunications infrastructure as the most important factor. All the location factors were evaluated differently by the two categories of respondents, and nearly all (except four) occupied different positions in the hierarchies developed by both groups. The results also suggested that the difference in the perception of location factors between the two groups of respondents was in most cases statistically significant.

**Practical Implications:** The research results can be helpful to government and non-government institutions that create the institutional environment for business. Having the knowledge of what entrepreneurs expect with regard to location factors, BEI managers can introduce new or improve existing measures implemented to facilitate business.

**Originality/Value:** The institutional environment as well as the theory and factors of location have been the subject of many empirical studies. However, a comparative analysis of the assessment of location factors provided by BEI representatives and by entrepreneurs is a new direction in research.

**Keywords:** Theory of location, location factors, business environment institutions.

**JEL classification:** D02, R12, R38.

**Paper Type:** Research study.

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## 1. Introduction

For years, numerous theoretical and empirical studies have been conducted in order to provide an understanding about the underlying reasons for locating business activities in specific areas (Matsushima and Matsumura, 2006; Brekke and Straume, 2004; Wu et al., 2019; Towhidur Rahman and Kabir, 2019; Gu et al., 2018; Nielsen et al., 2017). Globalisation has led to a situation where many assumptions of the location theory are analysed, especially with respect to external companies (including foreign ones) and inclusive of the economic factors as well as political framework and institutional environment involved in the process of locating a business (Geldner, 1986; Dunning, 1994, 2003; Porter, 2001; Godlewska-Majkowska, 2012).

Location of companies is explained by the classical location theory, originated by J.H. Thünen (1826) and then developed and continued by W. Launhardt (1882), A. Weber (1922 (1909)), W. Christaller (1933), E. M. Hoover (1948), A. Lösch (1978 (1954)) and W. Isard (1956). The founders of traditional location theories mainly searched for factors that determined the locating of companies in specific places, and one of the major factors in their opinion was the wish to minimise costs of transport. They pointed to efforts made in order to maximise incomes and minimise costs, while presenting models of actions taken by entrepreneurs and inhabitants in given locations developed in a spatial approach (Nijkamp, 2009).

In turn, the concept of a location factor was first introduced into the literature by A. Weber, who claimed that a location factor is a benefit a business gains when conducted in a given site or area. Benefits in this case should be understood as savings in production costs achieved in comparison to conducting the same business in another location. Thus, the choice of a location is an economic decision, which has an influence on conditions in which an economic activity is subsequently conducted, its costs and overall production efficiency (Budner, 2007).

There are many factors which influence the location of a business. Two groups are distinguished: first and second nature causes. The former includes factors associated with the geographical location, such as temperature, precipitations, distance to the sea, presence of natural resources, availability of farmland, etc. The latter are factors connected with human activities and economic incentives (e.g. economy of scale, transfer of knowledge) (Cronon, 1991; Krugman, 1991; Gonzalez-Val, Pueyo, 2009). Every site considered as a place for conducting a business represents two types of factors (Budner, 2007):

- 1) Supply factors, that is the possibilities of securing in a given area conditions necessary to conduct a business in question. They include suitable land plots, buildings and other facilities, labour resources, technical facilities, raw and processed materials, natural resources, energy.
- 2) Demand factors, that is how attractive a given location is in terms of distribution of manufactured goods, information or services, depending on the number of

consumers, their buying power, or the connection between consumers and the site where a given business is conducted. Demand factors are pivotal when selecting a suitable location for a services enterprise.

Any company searching for a place to locate its business must adjust its size and type to a specific location. Investors need many incentives to choose an appropriate location for their business or to remain in a place where they have been seated thus far. It is not just an area offered for investment or the facilities and amenities it comes with that are conducive to establishing a company in a certain place. Investors also respond to financial incentives, legal regulations, to the local government's attitude supporting investors, etc. (Campos and Kinoshita, 2003). The choice of a location for an enterprise is also important for the whole economy because setting up and developing companies translates into the economic growth of a region, higher employment and greater wealth of communities (Kolypiris et al., 2015).

The range of factors considered for the location of a company and their hierarchy change with time. Tangible production factors are highly mobile, which means that they are not a sufficient asset of a given location. The criteria dictating the location of companies in the past (e.g. access to raw materials, low costs of labour force and production means, development of the technical infrastructure, costs of transport or benefits from proximity to an agglomeration) are being superseded or supplemented by quality factors (e.g. quality of service in offices and institutions, development of knowledge transfer institutions, local government and community's attitude supporting the investor, or smooth communication with the international environment). As well as analysing the accessibility, size and capacity of market, in their search for appropriate locations companies consider political conditions. Business enterprises look for such qualities of a location that can ensure the lowest production cost possible and that will enable them to reach a high competitive position. However, the relative importance of location conditions for particular companies will depend on their expectations (Baron, 1995; Bonardi et al., 2005; García-Canal and Guillén, 2008; Mota and Brandão, 2011; Moeckel, 2013; Wierzbicka, 2013, 2015).

Based on the output of institutional economics (North, 1990; Williamson, 1985), an increasing impact of the institutional environment on economic strategies of companies can be observed (Ali et al., 2010; Boudreaux and Nikolaev, 2019; Godlewska, 2019; Dacin et al., 2002). It is generally agreed that institutions (local, regional and national ones) shape the conditions in which business activities are carried out, by giving rise to various business opportunities or restraints in specific locations (Nielsen et al., 2017). Results of the research done by Davidson and Mariev (2019) showed that the investment risk linked to the institutional environment has an adverse impact on location decisions made by companies. Their study confirmed the importance of a business-friendly institutional environment. The institutional environment which shapes the conditions for running businesses is created by business environment institutions (BEI), i.e. all kinds of public or private

entities which offer all types of assistance and business support services to investors. BEI play a very important role in the economic development and competitiveness of regions. Their influence depends on relationships between these institutions and national as well as foreign business enterprises (Dorożyński and Urbaniak, 2012; Serocka, 2016; Marks-Bielska and Serocka, 2018).

Adequate and effective use of available location conditions is fundamental to gaining a competitive advantage by companies. Porter distinguishes four most significant determinants that can favour or hinder the activities of a company, thus contributing to a competitive advantage achievable in a specific location. These are factor conditions, firm strategy, structure and rivalry, demand conditions, and related supporting industries (Porter, 1998, 2001).

The location of an investment is viewed from two perspectives. On the one hand, it is considered from the point of view of company managers, who evaluate the climate and attractiveness of possible location sites. On the other hand, it is influenced by local authorities (in a municipality, region or a country), who offer specific location assets. The resulting location decision should adhere to the rule of location coherence, where the best fit between location requirements of a company and assets of a given location assets is the objective; the higher the agreement between the company's expectations and the qualities of a given location, the more attractive this location is for the investor (Budner, 2007). Studies into the location of foreign investments in Romania demonstrated that the hierarchy of location factors varied depending on the geographical location where an investment project was implemented (Danciu and Strat, 2014).

Government and non-government business environment institutions have some impact on the economic activities of entrepreneurs. However, they are guided by their subjective perception of entrepreneurs' expectations, to which they adjust the undertaken measures. There are few studies in the literature which compare the perception of location conditions by entrepreneurs and by BEI representatives.

The above considerations seem to justify the following working hypotheses defined in this study:

**h1:** hierarchy of importance of location factors is perceived differently by entrepreneurs and by BEI representatives;

**h2:** there are statistically significant differences between evaluations of location factors by companies and by institutions (local government and non-government ones).

## 2. Methodology

The principal aim of this study was to determine the hierarchy of importance of location factors as perceived by entrepreneurs and by representatives of different business environment institutions.

The basis for our analysis consisted of primary data obtained from a poll study with questionnaires designed by the author and addressed to representatives of different BEI as well as entrepreneurs. The study was carried in 2017 and 2018.

The number of correctly completed questionnaire forms returned by representatives of municipal authorities reached 1257, which corresponded to a 60.7% return rate. Questionnaires were also sent to different offices and institutions classified as business environment in Poland<sup>1</sup>, and 219 completed forms were returned, which stands for a 27% return rate<sup>2</sup>.

Questionnaires were also sent at random to non-financial corporations all over Poland, with the workforce of 10 and more employees. According to Statistics Poland (the Polish acronym: GUS), there were 72 739 non-financial companies with 10 or more employees active in Poland in 2017. Assuming the maximum error at 5% and confidence level at 95%, the number of companies that needed to be included in the study was at least 382. In our case, 391 respondents answered the questionnaire, hence the sample can be considered as representative.

The verification of the first working hypothesis will be achieved by the determination of the hierarchy of importance of location factors depending on how they are perceived by companies and by business environment institutions. This will allow us to observe whether BEI authorities perceive requirements regarding the location of companies in specific sites the same way as entrepreneurs do, or else their perception is different. If the replies are highly congruent (the agreement verified by non-parametric tests), this outcome should be interpreted as an example good cooperation and contact between companies and BEI, and the manifestation of shared awareness of such location requirements. In contrast, differences in the hierarchies between the two groups may indicate the unawareness of entrepreneurs' actual expectations.

As the assumption of the normality of distribution of the replies provided by respondents was not satisfied, in addition to which there was a lack of the homogeneity of variance (observed in each group of respondents) as well as frequent non-equinumerous clusters for comparisons of the evaluation of particular location factors, it was decided to apply non-parametric equivalents t-tests (Bedyńska and Brzezicka, 2007) for the verification of the second hypothesis. The U Mann-Whitney test is considered as a good non-parametric equivalent of t-test for independent samples as its ability to discard a zero hypothesis when it is actually false is close to that of a t-test (cf. Ferguson, et al., 2016). This test, unlike its parametric equivalent, is based on comparing (and summing up) ranks rather than base values of variables. A certain limitation to possible applications of this test is the maximum number of tested groups, which equals 2. This limitation does not apply to the Kruskal-Wallis H test (which is an expanded form of the U Mann-Whitney test), where more than two groups can be compared.

### 3. Empirical Results

The location of an investment in a specific place is determined by many different location factors. The importance of particular location conditions depends primarily on the type/branch of a business and on the outcome expected by entrepreneurs. Location factors are evaluated differently by entrepreneurs, with actual practice in conducting businesses, and differently by representatives of institutions and offices, with theoretical knowledge of business practice. By knowing entrepreneurs' expectations, various institutions may (or may not) adjust the measures they implement for the sake of supporting economic activities. Thus, it is important to find out how both sides perceive location factors in view of the economic development.

Entrepreneurs decided that the most important location factor was the cost of running a business activity (score 9.08; score by BEI 8.79, the fourth most important factor). Representatives of business environment institutions chose the information and telecommunications infrastructure as the most important location factor (score 8.96, score by entrepreneurs 8.69, the second most important factor) (table 1). The location factors which were assessed the highest by both groups of respondents were almost the same, but 'shifting places'. This, however, does not negate the fact that all location factors were assessed differently by both groups, and nearly all (except four) occupied different places in the hierarchy of importance. The research results confirm the first working hypothesis, namely that the hierarchy of location factors is perceived differently by representatives of different business environment institutions and by entrepreneurs. The local and regional growth is affected by coordinated and consistent activities carried out by public authorities and other entities, which shape the conditions for business. The research results confirm differences in the hierarchy of importance of location factors declared by the two groups of respondents. Thus, it is justified to claim that some institutions do not know the expectations and needs of entrepreneurs. When this is the case, the implemented measures might not correspond to entrepreneurs' needs, and then the economic growth may slow down or even grind to a halt.

The lowest average score was assigned to the availability of mineral resources (according to representatives of both business and BEI). The most likely reasons are well-developed transportation infrastructure in the country and the option to import raw materials. The average score assigned by BEI representatives was 6.05, compared to 4.90 given by businessmen.

**Table 1.** Average scores of location factors by entrepreneurs and by BEI representatives, on a scale from 1 to 10

<i>Location factors</i>	<i>Average score by representatives of:</i>		<i>Difference between the average scores</i>
	<i>Companies</i>	<i>BEI</i>	
<i>Transportation and communication infrastructure</i>	<b>8.47</b>	<b>8.89</b>	-0.42
<i>Waterworks, sewers and power generation and transmission grid</i>	8.14	<b>8.84</b>	-0.70
<i>Information and telecommunications infrastructure (access to broadband internet, access to mobile telephone networks)</i>	<b>8.69</b>	<b>8.96</b>	-0.27
<i>Availability of mineral resources</i>	4.90	6.05	-1.15
<i>Geographical location</i>	7.03	8.06	-1.03
<i>Supply of buildings, office, factory and warehousing space</i>	7.38	7.73	-0.35
<i>Costs of leasing or purchasing land from municipal resources</i>	7.28	7.68	-0.40
<i>Costs of renting or purchasing buildings from municipal resources</i>	6.65	7.38	-0.73
<i>Rates of local taxes and fees (including tax reliefs and exemptions)</i>	<b>8.47</b>	8.27	0.20
<i>Costs of running a company in total</i>	<b>9.08</b>	<b>8.79</b>	0.29
<i>Level of remunerations in the region</i>	8.09	8.10	-0.01
<i>Supply of qualified labour force</i>	<b>8.59</b>	8.43	0.17
<i>Distance to big cities or metropolises</i>	6.95	<b>8.46</b>	<b>-1.51</b>
<i>Research institutes – possible cooperation</i>	5.16	6.45	<b>-1.29</b>
<i>Proximity to suppliers and cooperating companies</i>	6.95	7.76	-0.80
<i>Market in the region for selling products or services</i>	7.19	7.89	-0.71
<i>Offer for investors (availability of land for development)</i>	6.99	8.31	<b>-1.32</b>
<i>Other companies operating in the municipality (their experience)</i>	6.72	7.45	-0.73
<i>Functioning of business environment institutions</i>	5.87	7.15	<b>-1.28</b>
<i>Quality and efficiency of services in offices</i>	7.81	7.92	-0.12
<i>Positive attitude of office employees to entrepreneurs</i>	8.24	8.08	0.15
<i>Positive attitude of local community to entrepreneurs</i>	8.06	8.00	0.06

<i>Time needs to pass administrative decisions</i>	<b>8.53</b>	8.32	0.21
<i>Business values and standards in the region</i>	7.01	7.02	-0.01
<i>The municipality's spatial management policy (active implementation)</i>	7.51	8.14	-0.62
<i>Condition of the natural environment</i>	7.09	7.41	-0.32
<i>Conditions for leisure time activities</i>	6.22	7.22	-1.00
<i>The region's attractive image</i>	6.59	7.71	-1.12
<i>Costs of letting or buying accommodation</i>	6.18	7.30	-1.12
<i>Maintenance costs</i>	7.21	7.72	-0.51
<i>Public order and safety</i>	7.35	7.58	-0.23
<i>Schools, preschool and creches (safe and hygienic conditions in education institutions)</i>	6.72	7.76	-1.03
<i>Quality of health care</i>	6.97	7.61	-0.64
<i>Social welfare</i>	5.56	6.75	-1.20
<i>The municipality's housing policy</i>	5.68	6.73	-1.05

**Note:** Offices and institutions having a direct or indirect influence on conducting business activities.

**Source:** developed by the author, based on own research results.

Considering the research results, compiled in table 1, it appears that the BEI representatives assigned higher scores than entrepreneurs to 35 location factors. There were only 6 location conditions among all the factors submitted to analysis that scored higher by entrepreneurs, and they were: rates of taxes and local fees (including tax reliefs and exemptions), overall costs of running a business, supply of qualified labour force, positive attitude of office clerks to entrepreneurs, positive attitude of local community to entrepreneurs and the time needed to pass administrative decisions. They are not big differences in the assessment of these factors between the two groups, but they concern the factors that can be most strongly affected by BEI, which nevertheless scored them lower. Is this assessment a consequence of underestimating one's influence on creating favourable conditions for entrepreneurship?

Another interesting finding is the difference between average scores assigned by the two groups of respondents, shown in table 1. BEI representatives assessed relatively high the distance of a location to large cities or metropolises (the score of 8.46). Entrepreneurs assigned a score of 6.95 to this factor (the difference reached 1.51, being the biggest among all factors). It is a popular belief that it is easier to run a company in or close to a city, which may explain why this factor scored so high among representatives of BEI. However, a bigger city also means more competition, which is why entrepreneurs could assess this factor as being less important.



Moreover, the road infrastructure in Poland keeps improving, hence an investment outside a city might prove to be a better choice compared to high costs incurred by a location in a big city, for example high rents. Another factor which was evaluated much differently by the two groups of respondents was the offer for investors and availability of land for development (the difference in scores of 1.32). It was demonstrated that entrepreneurs consider other factors more important than the offer of land plots for investment projects. While this is important for large companies, it is not so for smaller ones, which need relatively less area. Two other factors with biggest differences in the assessment between the two groups are a possibility to cooperate with research institutes (the difference of 1.29) and the functioning of business environment institutions (difference: 1.28). Business environment institutions are expected to assist in various ways in the formation and operation of companies, yet they scored rather low among entrepreneurs (scores of 5.16 and 5.87, respectively). This may be due to the experience of entrepreneurs who have tried to obtain some help, but it has not been adequate to their needs. Another reason could be the belief shared by some entrepreneurs that such business environment institutions are not needed at all.

For each of the location factors considered, an analysis was made to find out whether there were statistically significant differences in its evaluation by the two groups of respondents, that is companies versus institutions (of local governments or non-government ones). For comparison, the results of the analysis were submitted to a t-test and the medians in two groups were determined, but the final decisions regarding the significance of differences in the assessment of location conditions were based on the results of the non-parametric U Mann-Whitney test (table 2) because of the failure to satisfy the assumption of the normality of distribution of the evaluations of location factors provided by the respondents.

**Table 2.** *Testing differences in assessments of location factors between the two groups of respondents*

<i>Location factors</i>	<i>U Mann-Whitney test</i>	
	<i>z</i>	<i>p</i>
<i>Transportation and communication infrastructure</i>	-3.281	<b>0.001</b>
<i>Waterworks, sewers and power grid</i>	-4.501	<b>0.000</b>
<i>Information and telecommunications infrastructure (access to broadband internet, access to mobile telephone networks)</i>	-0.802	0.423
<i>Availability of mineral resources</i>	-6.850	<b>0.000</b>
<i>Geographical location</i>	-7.197	<b>0.000</b>
<i>Supply of buildings, office, factory and warehousing space</i>	-1.585	0.113
<i>Costs of leasing or purchasing land from municipal resources</i>	-0.514	0.607
<i>Costs of renting or purchasing buildings from municipal resources</i>	-2.531	<b>0.011</b>
<i>Rates of local taxes and fees (including tax reliefs and exemptions)</i>	3.920	<b>0.000</b>

<i>Costs of running a company in total</i>	5.389	<b>0.000</b>
<i>Level of remunerations in the region</i>	1.192	0.233
<i>Supply of qualified labour force</i>	3.324	<b>0.001</b>
<i>Distance to big cities or metropolises</i>	-11.389	<b>0.000</b>
<i>Research institutes – possible cooperation</i>	-8.267	<b>0.000</b>
<i>Proximity to suppliers and cooperating companies</i>	-4.910	<b>0.000</b>
<i>Market in the region for selling products or services</i>	-2.325	<b>0.020</b>
<i>Offer for investors (availability of land for development)</i>	-8.806	<b>0.000</b>
<i>Other companies operating in the municipality (their experience)</i>	-4.113	<b>0.000</b>
<i>Functioning of business environment institutions</i>	-8.405	<b>0.000</b>
<i>Quality and efficiency of services in offices</i>	1.174	0.240
<i>Positive attitude of office employees to entrepreneurs</i>	4.218	<b>0.000</b>
<i>Positive attitude of local community to entrepreneurs</i>	3.307	<b>0.001</b>
<i>Time needs to pass administrative decisions</i>	4.981	<b>0.000</b>
<i>Business values and standards in the region</i>	1.617	0.106
<i>The municipality's spatial management policy (active implementation)</i>	-3.432	<b>0.001</b>
<i>Condition of the natural environment</i>	-1.292	0.196
<i>Conditions for leisure time activities</i>	-6.169	<b>0.000</b>
<i>The region's attractive image</i>	-6.784	<b>0.000</b>
<i>Costs of letting or buying accommodation</i>	-6.274	<b>0.000</b>
<i>Maintenance costs</i>	-2.366	<b>0.018</b>
<i>Public order and safety</i>	0.243	0.808
<i>Schools, preschool and creches (safe and hygienic conditions in education institutions)</i>	-5.037	<b>0.000</b>
<i>Quality of health care</i>	-2.799	<b>0.005</b>
<i>Social welfare</i>	-7.346	<b>0.000</b>
<i>The municipality's housing policy</i>	-6.319	<b>0.000</b>

**Note:**  $p$  – significance level, if  $p < 0.05$ , the respondents' answers are deemed as significantly different,

$z$  – value of the statistic.

**Source:** developed by the author, based on own research results.

The results show that in most cases the difference in the evaluation of the same location factor by the two groups of respondents was statistically significant. Out of the 35 analysed location factors, only eight were evaluated with no statistically significant differences in the scores assigned by both groups. Relatively similar opinions were noted for some location factors that were evaluated as less important (cf. table 1), e.g. the availability of buildings, office, production and warehousing space, costs of lease or purchase of land from the municipal resources, business values and standards in the region, condition of the natural environment, public order and safety, but also some factors evaluated higher, e.g. the condition of

information and telecommunications infrastructure (accessibility of broadband Internet, accessibility of mobile telecommunication), level of remunerations in the region, quality and efficiency of service provided in offices.

The results of the analysis supported by the U Mann-Whitney test allow us to confirm the second working hypothesis (H2), according to which assessment of location factors by companies and by institutions (local government and non-government ones) differ in a statistically significant way.

#### **4. Summary and Concluding Comments**

Doing business requires an immense input of work, capital and the right use of know-how. The establishment and management of a company is always laden with risk, hence, prior to starting a new enterprise, entrepreneurs take into consideration many different factors.

The results of this study have shown that entrepreneurs, with practical business experience, differ in their evaluation of location factors from representatives of different business environment institutions, who have a theoretical knowledge of business. It is the entrepreneurs who risk their financial capital, often considerable sums of money, and who know well what matters the most when trying to reduce the business risk as much as possible. A business-friendly climate is very important because it allows entrepreneurs to make good business decisions without the unnecessary stress of handling various matters in different offices or institutions.

A possible field of interest for future studies could be to analyse the evaluation of location factors depending on the geographical location of a company or institution. This might be particularly interesting to investigate in Poland, where some regions differ in their economic development, which can have an influence on the assessment of location factors. The hierarchy of importance of location factors according to entrepreneurs and BEI representatives may look different in less developed regions than in ones enjoying a higher level of development.

The results presented in this article also implicate possible directions for activities undertaken by different government and non-government institutions which create the economic and institutional environment for business. It is worth focusing on the factors which are evaluated as highly important by entrepreneurs and which are directly or indirectly affected by BEI (e.g. improved condition of the transportation, communication, information and telecommunications infrastructures, swiftness of passing administrative decisions, rates of local taxes and fees, including tax reliefs and exemptions), and then more forward to meet the expectations and needs of business people. In the long term, this approach can have an impact on the country's economic development.

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**References:**

- Ali, F. A., Fiess, N., MacDonald, R. 2010. Do Institutions Matter for Foreign Direct Investment? *Open Econ Rev* 21 (2), 201–219. DOI: 10.1007/s11079-010-9170-4.
- Baron, D. P. 1995. Integrated Strategy. Market and Nonmarket Components. In: *California Management Review* 37 (2), 47–65. DOI: 10.2307/41165788.
- Bedyńska, S., Brzezicka, A. (eds.). 2007. *Statystyczny drogowskaz: praktyczny poradnik analizy danych w naukach społecznych na przykładach z psychologii*. Wydawnictwo Szkoły Wyższej Psychologii Społecznej "Academica". 203.
- Bonardi, J. P., Hillman, A. J., Keim, G. D. 2005. The Attractiveness of Political Markets. Implications for Firm Strategy. In: *AMR* 30 (2), 397–413. DOI: 10.5465/amr.2005.16387895.
- Boudreaux, C. J., Nikolaev, B. 2019. Capital is not enough. Opportunity entrepreneurship and formal institutions. w: *Small Bus Econ* 53 (3), 709–738. DOI: 10.1007/s11187-018-0068-7.
- Brekke, Kurt R.; Straume, O. R. 2004. Bilateral monopolies and location choice. In: *Regional Science and Urban Economics* 34 (3), 275–288. DOI: 10.1016/S0166-0462(03)00046-2.
- Budner, W. 2007. Czynniki lokalizacji inwestycji a możliwości rozwoju ekonomicznego gmin w Polsce. In: *Acta Scientiarum Polonorum, Administratio Locorum* (6/3), 43–58.
- Campos, N. F., Kinoshita, Y. 2003. Why Does FDI Go Where it Goes? New Evidence from the Transition Economies. *IMF Working Paper*. Nr 3 (228), 9–11. DOI: 10.2139/ssrn.414540.
- Christaller, W. 1933. *Die Zentralen Orte in Süddeutschland. Eine ökonomisch-geographische Untersuchung über die Gesetzmässigkeit der Vorbereitung und Entwicklung der Siedlungen mit städtischen Funktionen*. Jena.
- Cronon, W. 1991. *Nature's metropolis. Chicago and the Great West*. New York. Horton. DOI: 10.1086/ahr/97.3.939.
- Dacin, T.M., Goodstein, J., Richard S. W. 2002. Institutional Theory and Institutional Change. Introduction to the Special Research Forum. w: *AMJ* 45 (1), 45–56. DOI: 10.5465/amj.2002.6283388.
- Danciu, A. R., Strat, V. A. 2014. Factors Influencing the Choice of the Foreign Direct Investments Locations in the Romanian Regions. In: *Procedia - Social and Behavioral Sciences* 109, 870–874. DOI: 10.1016/j.sbspro.2013.12.556.
- Davidson, N., Mariev, O. 2019. Factors determining enterprise location choice in Russia, In: *Proceedings of the 11th Economics & Finance Conference, Rome. 11th Economics & Finance Conference, Rome: International Institute of Social and Economic Sciences*. DOI: 10.15826/vestnik.2018.17.6.042.
- Dorożyński, T., Urbaniak, W. 2012. Rola instytucji otoczenia biznesu w przyciąganiu inwestorów zagranicznych w regionie łódzkim. In: *Studia Prawno Ekonomiczne* (85), 201–217.
- Dunning, J.H. 1994. *Multinational Enterprises and the Global Economy*. Addison-Wesley, Workingham.
- Dunning, J.H. 2003. The Role of Foreign Direct Investment in Upgrading China's Competitiveness. *Journal of International Business and Economy*. Vol. 4, No. 1. 11.
- Ferguson, G. A., Takane, Y., Zagrodzki, M. 2016. *Analiza statystyczna w psychologii i pedagogice*. Wydawnictwo Naukowe PWN.

- García-Canal, E., Guillén, M. F. 2008. Risk and the strategy of foreign location choice in regulated industries. *Strat. Mgmt. J.* 29 (10), 1097–1115. DOI: 10.1002/smj.692.
- Geldner, M. 1986. Przyczynę do teorii zagranicznych inwestycji bezpośrednich. *Monografie i Opracowania, SGPiS, nr 193, Warszawa, 86.*
- Godlewska, M. 2019. Do interactions between formal and informal institutions matter for productive entrepreneurship? *EiP* 18 (1), 17. DOI: 10.12775/EiP.2019.002.
- Godlewska-Majkowska, H. (ed.) 2012. Atrakcyjność inwestycyjna jako źródło przedsiębiorczych przewag konkurencyjnych. *Szkoła Główna Handlowa - Oficyna Wydawnicza. Warszawa, 9- 12.*
- Gonzalez-Val, R., Pueyo, F. 2009. First Nature vs. Second Nature Causes: Industry Location and Growth in the Presence of an Open-Access Renewable Resource. *Munich Personal RePEc Archive, No. 18586, 1-28.*
- Gu, J., Yang, Y. Strange, R. 2018. Location choice, ownership structure and multinational performance. *Multinational Business Review* 26 (3), 250–276. DOI: 10.1108/MBR-12-2017-0105.
- Hoover, E. M. 1948. *The Location of Economic Activity.* New York: McGraw-Hill.
- Isard, W. 1956. *Location and Space-economy. A General Theory Relating to Industrial Location, Market Areas, Land Use, Trade, and Urban Structure.* New York: The MIT Press.
- Kolympiris, C., Kalaitzandonakes, N., Miller, D. 2015. Location choice of academic entrepreneurs. Evidence from the US biotechnology industry. w: *Journal of Business Venturing* 30 (2), 227–254. DOI: 10.1016/j.jbusvent.2014.02.002.
- Krugman, P. 1991. Increasing Returns and Economic Geography. *Journal of Political Economy*, Vol. 99, no. 3, 483-499.
- Lösch, A., Woglom, W. H., Stolper, W. F. 1978 (1954). *The economics of location.* New Haven: Yale University Press.
- Marks-Bielska, R., Serocka, I. 2018. The Impact of Warmia and Masuria Local Authorities on Entrepreneurship Development in the Business Location Factors Context. w: *Folia Oeconomica Stetinensia* 18 (1), 67–81. DOI: doi.org/10.2478/fole-2018-0006.
- Matsushima, N., Matsumura, T. 2006. Mixed oligopoly, foreign firms, and location choice. *Regional Science and Urban Economics* 36 (6), 753–772. DOI: 10.1016/j.regsciurbeco.2006.03.005.
- Moeckel, R. 2013. Firm Location Choice Versus Job Location Choice in Microscopic Simulation Models, w: *Employment Location in Cities and Regions: Models and Applications*, red. Francesca Pagliara, Michiel de Bok, David Simmonds i Alan Wilson. Berlin, Heidelberg: Springer Berlin Heidelberg, 223–242. DOI: 10.1007/978-3-642-31779-8\_11.
- Mota, I., Brandão, A. 2011. The determinants of location choice. Single plants versus multi plants. w: *Papers in Regional Science* 84. DOI: 10.1111/j.1435-5957.2011.00401.x.
- Nielsen, B. B., Asmussen, C. G., Weatherall, C. D. 2017. The location choice of foreign direct investments. Empirical evidence and methodological challenges. w: *Journal of World Business* 52 (1), 62–82. DOI: 10.1016/j.jwb.2016.10.006.
- Nijkamp, P. 2009. *Regional Development as an Self-Converging Growth.* W: *Spatial Disparities and Development Policy.* Kochendorfer-Lucius G., Pleskovic B. (ed.). The World Bank, Washington, 270.
- North, D.C. 1990. *Institutions, Institutional Change and Economic Performance.* Cambridge University Press, Cambridge.
- Porter, M.E. 1998. Clusters and the new economics of competition, „Harvard Business School Press”, No. 76(6).

- Porter, M.E., 2001. Porter o konkurencji. Wyd. PWE, Warszawa.
- Serocka, I. 2016. Znaczenie czynników lokalizacji przedsiębiorstw a aktywność władz lokalnych gmin województwa warmińsko-mazurskiego / The importance of business location factors vs. the activity of Warmia and Mazury Voivodeship local authorities. w: *Prace Naukowe Uniwersytetu Ekonomicznego we Wrocławiu* (450). DOI: 10.15611/pn.2016.450.45.
- Towhidur Rahman, S. M., Kabir, A. 2019. Factors influencing location choice and cluster pattern of manufacturing small and medium enterprises in cities. Evidence from Khulna City of Bangladesh. *Journal of Global Entrepreneurship Research* 9 (1). DOI: 10.1186/s40497-019-0187-x
- Thünen, J. H. 1826. *Der isolirte Staat in Beziehung auf Landwirthschaft und Nationalökonomie*. Hamburg.
- Weber, A. 1922 (1909). *Ueber den Standort der Industrien*. Tübingen: J.C.B. Mohr (Paul Siebeck).
- Wierzbicka, W. 2013. Quality of location in regions and economic efficiency of private companies in Poland. *Olsztyn Economic Journal* (8), 121–134.
- Wierzbicka, W. 2015. Czynniki lokalizacji przedsiębiorstw w warunkach zmienności otoczenia. *Zeszyty Naukowe Uniwersytetu Przyrodniczo-Humanistycznego w Siedlcach* Seria: Administracja i Zarządzanie (106), 239–250.
- Williamson, O. E. 1985. *The Economic Institutions of Capitalism*. The Free Press, New York.
- Wu, K., Wang, Y., Ye, Y., Zhang, H., Huang, G. 2019. Relationship Between the Built Environment and the Location Choice of High-Tech Firms. Evidence from the Pearl River Delta. w: *Sustainability* 11 (13). DOI: 10.3390/su11133689.

## Notes:

1. *Representatives of the following institutions participated in the study: Regional Development Agencies, Investor Services centres, Special Economic Zones, technology Transfer Centres, Loan Funds, technology Incubators, Training and Advisory Centres, Science and Technology Parks, Preincubators and Academic Entrepreneurship Incubators, District Offices, Marshal's Offices, Provincial Offices.*
2. *Municipalities and other types of institutions will be referred to as business environment institutions (BEI).*